

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
ON APPEAL FROM THE EXAMINER TO THE BOARD  
OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	Jonathan Dale
Serial No:	10/608,876
Date Filed:	June 27, 2003
Group Art Unit:	3628
Examiner:	Fadey S. Jabr
Confirmation No.	7466
Title:	DYNAMIC SERVICE SCHEDULING

**Mail Stop Appeal Brief - Patents**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**APPEAL BRIEF**

Appellant has appealed to this Board from the decision of the Examiner, contained in a Final Office Action mailed September 7, 2007 ("*Final Office Action*") and the Advisory Action mailed December 26, 2007 ("*Advisory Action*"), finally rejecting Claims 1-31. Appellant filed a Notice of Appeal on December 26, 2007. Appellant submits this Appeal Brief for consideration of the Board.

**TABLE OF CONTENTS**

REAL PARTY IN INTEREST.....	3
RELATED APPEALS AND INTERFERENCES .....	4
STATUS OF CLAIMS .....	5
STATUS OF AMENDMENTS.....	6
SUMMARY OF CLAIMED SUBJECT MATTER.....	7
GROUND OF REJECTION TO BE REVIEWED ON APPEAL .....	14
I.    Appellant requests that the Board review the Examiner’s rejection of Claims 1-31 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent Application Publication No. 2002/0082877 issued to Schiff et al. (“ <i>Schiff</i> ”) in view of U.S. Patent Application Publication No. 2004/0249684 issued to Karppinen (“ <i>Karppinen</i> ”) and U.S. Patent Application Publication No. 2006/0212321 issued to Vance et al. (“ <i>Vance</i> ”). .....	14
ARGUMENT.....	15
CONCLUSION .....	19
Appendix A: Claims Involved In Appeal .....	20
Appendix B: Evidence.....	28
Appendix C: Related Proceedings.....	29

**REAL PARTY IN INTEREST**

The real party in interest for this Application under appeal is Fujitsu Limited.

**RELATED APPEALS AND INTERFERENCES**

The Appellant, the undersigned Attorney for Appellant, and the Assignee know of no applications on appeal that may directly affect, be directly affected by, or have any bearing upon the Board's decision in the pending appeal.

**STATUS OF CLAIMS**

Claims 1-31 are pending in the Application and are all rejected. Appellant presents all pending claims for appeal and set forth these claims in Appendix A.

**STATUS OF AMENDMENTS**

The claims on appeal appearing in Appendix A of this Appeal Brief represent the form of the claims as of the time of the *Final Office Action* dated September 7, 2007. Appellant filed no amendments to the claims after the *Final Office Action*.

**SUMMARY OF CLAIMED SUBJECT MATTER**

A system 10 includes multiple service providers 12 and a consumer 14 interconnected by a communication network 16. *Specification*, p. 6, ll. 2-11; *id.* at Figure 1. Consumer 14 includes a consumer agent 22 that identifies a template which specifies events for a task. *Id.* The consumer agent 22 implements an iterative process in which the template may be further defined and/or refined to provide links to the services that provide features for fulfilling events within an itinerary. *Id.* at p. 7, l. 19 - p. 9, l. 19; and p. 10, l. 18 - p. 11, l. 4. This process may include determining multiple consumer descriptors, accessing a remote service registry 24 having service descriptors for multiple services, and filtering the services from the service registry 24 based on the service descriptors, the events, and the consumer descriptors. *Id.* at p. 7, ll 19-30; p. 11, l. 13 - p. 12, l. 7; p. 12, l. 31 - p. 13, l. 9.

According to particular embodiments, consumer agent 22 interacts with other elements of system 10 to generate a schedule of services 18 that will fulfill particular events according to preferences of consumer 14. *Id.* at p. 6, ll 2-11. For example, consumer agent 22 may interact with multiple service providers 12 to schedule services 18 for a travel itinerary. *Id.*

The following discussion identifies the claimed means plus function limitations and, for each such limitation, provides example structures and discussion in the specification for performing the recited functions:

1. means for identifying a template specifying a plurality of events;

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, and service registry 24.

2. means for determining a plurality of consumer descriptors;

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22,

service registry 24, agent 40, interface 42, description 44, a knowledge base 46, a plan 48, and a plan processing engine 50.

3. means for accessing a remote service directory having service descriptors for each of a plurality of services;

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, service features 52, a description 54, and feature interfaces 56.

4. means for filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events;

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, agent 40, interface 42, description 44, a knowledge base 46, a plan 48, a plan processing engine 50, service features 52, a description 54, and feature interfaces 56.

5. means for querying each of the potential services for additional service descriptors;

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, service features 52, a description 54, and feature interfaces 56.

6. means for filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events;

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, agent 40, interface 42, description 44, a knowledge base 46, a plan 48, a plan processing engine 50, service features 52, a description 54, and feature interfaces 56.

7. means for identifying service links for accessing the selected services;



Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, agent 40, interface 42, description 44, a knowledge base 46, a plan 48, a plan processing engine 50, service features 52, a description 54, and feature interfaces 56.

8. means for modifying the template to associate the service links with the events;

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, agent 40, interface 42, description 44, a knowledge base 46, a plan 48, a plan processing engine 50, service features 52, a description 54, and feature interfaces 56.

9. means for determining whether each of the events in the template has an associated service link; and

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, agent 40, interface 42, description 44, a knowledge base 46, a plan 48, a plan processing engine 50, service features 52, a description 54, and feature interfaces 56.

10. means for, when each of the events in the template has an associated service link, presenting the template for acceptance.

Example structures for performing the recited function include system 10, service provider 12, consumer 14, network 16, service 18, service agent 20, consumer agent 22, service registry 24, agent 40, interface 42, description 44, a knowledge base 46, a plan 48, a plan processing engine 50, service features 52, a description 54, and feature interfaces 56.

A. Claim 1 - Independent

1. A method for dynamic service scheduling comprising:  
identifying a template specifying a plurality of events;  
determining a plurality of consumer descriptors;

accessing a remote service directory having service descriptors for each of a plurality of services;

filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events;

querying each of the potential services for additional service descriptors;

filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events;

identifying service links for accessing the selected services;

modifying the template to associate the service links with the events;

determining whether each of the events in the template has an associated service link;  
and

when each of the events in the template has an associated service link, presenting the template for acceptance.

*See, e.g.*, Figure 1 (10, 12, 14, 16, 18, 20, 22, 24), Figure 3 (18, 52, 54, 56), and Figure 5 (100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126); and in the specification at 6:1-10:8; 13:25-15:3; 16:9-18:4.

B. Claim 2 - Dependent

2. The method of Claim 1, wherein for each of the potential services, the additional service descriptors comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.

*See, e.g.*, Figure 1 (10, 12, 14, 16, 18, 20, 22, 24), Figure 3 (18, 52, 54, 56), and Figure 5 (100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126); and in the specification at 6:1-10:8; 13:25-15:3; 16:9-18:4.

C. Claim 11 - Independent

11. A consumer system comprising:

a database storing a template specifying a plurality of events and a plurality of consumer descriptors;

an interface operable to communicate with a remote service directory having service descriptors for each of a plurality of services and to communicate with the services; and

an agent operable to access the remote service directory, to filter the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events, to query each of the potential services for additional service descriptors, to filter the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events, to identify service links for accessing the selected services, to modify the template to associate the service links with the events, to determine whether each of the events in the template has an associated service link, and when each of the events in the template has an associated service link, to present the template for acceptance.

*See, e.g.,* Figure 1 (10, 12, 14, 16, 18, 20, 22, 24), Figure 2 (40, 42, 44, 46, 48, 50), Figure 3 (18, 52, 54, 56), Figure 4 (70, 72, 74, 76, 78, 80, 82), and Figure 5 (100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126); and in the specification at 6:1-10:8; 10:9-13:24; 13:25-15:3; 15:4-16:8; 16:9-18:4.

D. Claim 12 - Dependent

12. The consumer system of Claim 11, wherein for each of the potential services, the additional service descriptors comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.

*See, e.g.,* Figure 1 (10, 12, 14, 16, 18, 20, 22, 24), Figure 2 (40, 42, 44, 46, 48, 50), Figure 3 (18, 52, 54, 56), Figure 4 (70, 72, 74, 76, 78, 80, 82), and Figure 5 (100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126); and in the specification at 6:1-10:8; 10:9-13:24; 13:25-15:3; 15:4-16:8; 16:9-18:4.

E. Claim 21 - Independent

21. Logic for accessing wireless services with a mobile device, the logic encoded in media and operable when executed to perform the steps of:

identifying a first personality associated with a first wireless communication service;

registering the first personality with the first wireless communication service using a first wireless network;

identifying a second personality associated with a second wireless communication service;

registering the second personality with the second wireless communication service using a second wireless network;

using a wireless interface to monitor for notifications from the first wireless network that identify the first personality during one or more occurrences of a first notification timeslot; and

using the wireless interface to monitor for notifications from the second wireless network that identify the second personality during one or more occurrences of a second notification timeslot.

*See, e.g.*, Figure 1 (10, 12, 14, 16, 18, 20, 22, 24), Figure 3 (18, 52, 54, 56), and Figure 5 (100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126); and in the specification at 6:1-10:8; 13:25-15:3; 16:9-18:4.

F. Claim 22 - Dependent

22. The computer readable medium of Claim 21, wherein for each of the potential services, the additional service descriptors comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.

*See, e.g.*, Figure 1 (10, 12, 14, 16, 18, 20, 22, 24), Figure 3 (18, 52, 54, 56), and Figure 5 (100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126); and in the specification at 6:1-10:8; 13:25-15:3; 16:9-18:4.

G. Claim 31 - Independent

31. A consumer system comprising:  
means for identifying a template specifying a plurality of events;  
means for determining a plurality of consumer descriptors;  
means for accessing a remote service directory having service descriptors for each of a plurality of services;

means for filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events;

means for querying each of the potential services for additional service descriptors;

means for filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events;

means for identifying service links for accessing the selected services;

means for modifying the template to associate the service links with the events;

means for determining whether each of the events in the template has an associated service link; and

means for, when each of the events in the template has an associated service link, presenting the template for acceptance.

*See, e.g.*, Figure 1 (10, 12, 14, 16, 18, 20, 22, 24), Figure 3 (18, 52, 54, 56), and Figure 5 (100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126); and in the specification at 6:1-10:8; 13:25-15:3; 16:9-18:4.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

- I. Appellant requests that the Board review the Examiner's rejection of Claims 1-31 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent Application Publication No. 2002/0082877 issued to Schiff et al. ("*Schiff*") in view of U.S. Patent Application Publication No. 2004/0249684 issued to Karppinen ("*Karppinen*") and U.S. Patent Application Publication No. 2006/0212321 issued to Vance et al. ("*Vance*").

**ARGUMENT**

**Rejection Under 35 U.S.C. § 103**

The Examiner rejects Claims 1-31 under 35 U.S.C. § 103(a) as unpatentable over *Schiff* in view of *Karppinen* and *Vance*. Appellant respectfully traverses the rejection on the ground that *Schiff*, *Karppinen*, and *Vance*, whether taken alone or in combination, fail to teach or suggest all limitations of the claims.

Consider Appellant's independent Claim 1, which recites:

- A method for dynamic service scheduling comprising:
  - identifying a template specifying a plurality of events;
  - determining a plurality of consumer descriptors;
  - accessing a remote service directory having service descriptors for each of a plurality of services;
  - filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events;
  - querying each of the potential services for additional service descriptors;
  - filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events;
  - identifying service links for accessing the selected services;
  - modifying the template to associate the service links with the events;
  - determining whether each of the events in the template has an associated service link; and
  - when each of the events in the template has an associated service link, presenting the template for acceptance.

Appellant respectfully submits that the references, whether taken alone or in combination, fail to teach or suggest: (1) both the claimed "events" and the claimed "services" and (2) filtering the services to determine potential ones of the services and filtering the potential services to determine selected ones of the services. Also, Appellant respectfully submits that certain dependent claims include separately patentable limitations.

In general, *Schiff* describes techniques for identifying potential cruises for a customer based on customer preferences. *Schiff*, ¶¶ 44, 92, 100-01. *Schiff's* system collects booking preferences (*e.g.*, destination and desired occupancy per cabin) and additional search criteria (*e.g.*, food requests or handicaps). *Id.* at ¶¶ 100-01. *Schiff's* system uses the obtained information to determine select cruises that may be of interest to the customer. *Id.* at ¶ 105; *see also* Figures 5-7.

**A. The proposed combination fails to teach or suggest the claimed “services.”**

In previous actions, it was unclear what the Examiner equated to the claimed services. *See, e.g., Office Action of September 7, 2007*, p. 2 (seeming to imply that the services equated to *Schiff*'s activities available for each cruise). In the *Advisory Action*, the Examiner clarifies his position, arguing that the cruise ships of *Schiff* teach the claimed services. *Schiff*'s cruise ships, however, fail to teach or suggest the services recited in Claim 1. Claim 1 requires, in part, “querying each of the potential services for additional service descriptors” and “identifying service links for accessing the selected services.” Nothing in *Schiff* teaches or suggests that cruise ships can be queried for additional service descriptors or accessed using service links. Thus *Schiff* does not teach or suggest the “services” required by Claim 1.

*Karppinen* and *Vance* fail to remedy the deficiencies of *Schiff*. Appellant thus respectfully submits that *Schiff*, *Karppinen*, and *Vance*, whether taken alone or in combination, fail to teach or suggest every element of Claim 1. Likewise, independent Claims 11, 21, and 31 include limitations that, for substantially similar reasons, are not taught or suggested by the references. Because the proposed *Schiff-Karppinen-Vance* combination fails to teach or suggest every element of independent Claims 1, 11, 21, and 31, Appellant respectfully requests that the Board reverse the rejection of Claims 1, 11, 21, and 31, and their respective dependent claims, and direct the Examiner to issue a notice of allowance.

**B. The proposed combination fails to teach or suggest the claimed steps for filtering of services.**

Claim 1 requires “filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events,” “querying each of the potential services for additional service descriptors,” and “filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events.” The proposed *Schiff-Karppinen-Vance* combination does not teach or suggest these claimed aspects.

As teaching the initial filtering step, the Examiner points to *Schiff*, paragraphs 44, 100, and 101 and Figure 8. *Office Action*, p. 4. In the cited paragraphs, *Schiff* describes the process of collecting booking preferences and additional search criteria, then using this



information to identify cruises of potential interest. *Id.* at ¶¶ 100-01 and 105; *see also* Figures 5-7. However, even assuming that *Schiff's* cruise ships are services and identifying cruise ships of interest is “filtering . . . based on the service descriptors, the events, and the consumer descriptors,” *Schiff* still fails to teach “querying each of the potential services for additional service descriptors,” and “filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events.”

If in fact the Examiner is correct that *Schiff's* cruise ships equate to the claimed services, then the proposed combination of references must teach or suggest “querying each of the potential [cruise ships] for additional service descriptors” and “filtering the potential [cruise ships] based on the additional service descriptors.” Nothing in *Schiff*, *Karppinen* or *Vance* teaches or suggests these operations. Not surprisingly, the Examiner's proposed evidence for teaching the second filtering step (*i.e.* “filtering the potential services based on the additional service descriptors . . .”) is virtually non-existent. As teaching the second filtering step, the *Advisory Action* points to *Schiff's* Check Availability button in Figure 8, stating “a user can further filter the potential events and services by checking which events and services they would like by pressing the Check Availability button.” However, *Schiff's* specification fails to even mention the Check Availability button shown in Figure 8. In fact, the only check availability function that *Schiff* describes is checking the availability of particular rooms or cabins. *Schiff*, ¶ 114. In describing Figure 8, *Schiff* merely mentions “enabl[ing] the user to view and select number of cruise sailings by marking the ‘check box’ 842 that corresponds to the selected cruise package.” *Schiff*, ¶ 120. For at least these reasons, *Schiff* fails to teach “filtering the potential services . . . to determine selected ones of the services,” as Claim 1 requires.

Appellant thus respectfully submits that *Schiff*, *Karppinen*, and *Vance*, whether taken alone or in combination, fail to teach or suggest every element of Claim 1. Likewise, independent Claims 11, 21, and 31 include limitations that, for substantially similar reasons, are not taught or suggested by the references. For these additional reasons, Appellant respectfully requests that the Board reverse the rejection of Claims 1, 11, 21, and 31, and their respective dependent claims, and direct the Examiner to issue a notice of allowance.

**C. Dependent Claims 2, 12, and 22 include separately patentable limitations.**

Consider, for example, dependent Claim 2, which recites, “The method of Claim 1, wherein for each of the potential services, the additional service descriptors comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.” Appellant respectfully submits that *Schiff*, *Karppinen*, and *Vance*, whether taken alone or in combination, fail to teach or suggest these claimed aspects.

Assuming again that the Examiner is correct that *Schiff*'s cruise ship can equate to the claimed services, *Schiff* must teach or suggest that cruise ships have “additional service descriptors comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.” These aspects of cruise ships are not obvious and, not surprisingly, nothing in *Schiff* or the other cited references teaches or suggests these aspects of cruise ships.

As teaching these claimed aspects, the *Office Action* points to *Schiff*, paragraphs 66, 100, and 101 and Figure 8. *Office Action*, p. 5. As explained above, paragraphs 100 and 101 of *Schiff* discuss a pre-qualification process that collects a customer's booking preferences and additional search criteria. *Id.* at ¶¶ 100-01. In paragraph 66, *Schiff* notes that the cruise selling and booking component 220 may receive query results from various sources, process those results, and format the results for presentation to the user. *Id.* at ¶ 66. However, these portions of *Schiff* fail to teach or suggest that the “additional service descriptors [of the service] comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature,” as Claim 2 requires. *Karppinen* and *Vance* fail to remedy the deficiencies of *Schiff*.

Appellant thus respectfully submits that *Schiff*, *Karppinen*, and *Vance*, whether taken alone or in combination, fail to teach or suggest every element of Claim 2. Likewise, dependent Claims 12 and 22 include limitations that, for substantially similar reasons, are not taught or suggested by the references. For at least these reasons, Appellant respectfully requests that the Board reverse the rejection of Claims 2, 12, and 22, and their respective dependent claims, and direct the Examiner to issue a notice of allowance.

Moreover, while not expressly discussed, other dependent claims provide further patentable limitations. Appellant respectfully submits that the rejection of these limitations contains clear factual and legal deficiencies.

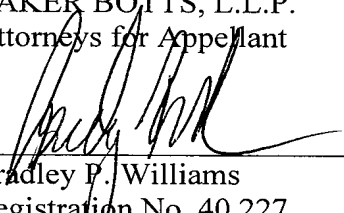
**CONCLUSION**

Appellant has demonstrated that the present invention, as claimed in Claims 1-31, is patentably distinct from the cited art. Accordingly, Appellant respectfully requests that the Board reverse the final rejection and instruct the Examiner to issue a Notice of Allowance of Claims 1-31.

The Commissioner is hereby authorized to charge \$510.00 for filing this Appeal Brief to Deposit Account No. 02-0384 of Baker Botts, L.L.P. Appellant believes that no other fees are due; however, the Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account No. 02-0384 of Baker Botts, L.L.P.

Respectfully submitted,

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**Appendix A: Claims Involved In Appeal**

1. **(Previously Presented)** A method for dynamic service scheduling comprising:

identifying a template specifying a plurality of events;  
determining a plurality of consumer descriptors;  
accessing a remote service directory having service descriptors for each of a plurality of services;

filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events;

querying each of the potential services for additional service descriptors;

filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events;

identifying service links for accessing the selected services;

modifying the template to associate the service links with the events;

determining whether each of the events in the template has an associated service link;

and

when each of the events in the template has an associated service link, presenting the template for acceptance.

2. **(Original)** The method of Claim 1, wherein for each of the potential services, the additional service descriptors comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.

3. **(Original)** The method of Claim 2, wherein each of the service links points to a particular feature of the identified service and specifies a command for accessing the particular feature.

4. **(Original)** The method of Claim 1, wherein the consumer descriptors include global descriptors applicable across multiple templates and dynamic descriptors specifying constraints for one or more of the events.

5. **(Original)** The method of Claim 1, further comprising:  
identifying an additional event based on a query to one of the potential services;  
modifying the template to include the additional event;  
accessing the remote service directory;  
filtering the services from the service directory based on the service descriptors, the additional event, and the consumer descriptors to determine potential ones of the services for fulfilling the additional event;  
querying each of the potential services for fulfilling the additional event for additional service descriptors;  
filtering the potential services for fulfilling the additional event based on the additional service descriptors, the additional event, and the consumer descriptors to determine one of the services for fulfilling the additional event;  
identifying a service link for accessing the determined service for fulfilling the additional event; and  
modifying the template to associate the identified service link with the additional event.

6. **(Original)** The method of Claim 1, further comprising receiving an acceptance of the template and, in response, accessing each of the selected services using the service links to request performance of the services.

7. **(Original)** The method of Claim 6, further comprising communicating payment information to at least one of the selected services.

8. **(Original)** The method of Claim 1, wherein the template comprises a text based file.

9. **(Original)** The method of Claim 1, wherein the template specifies events for a travel itinerary that includes an air transportation event, a lodging event, a ground transportation event, and a plurality of activities.

10. **(Original)** The method of Claim 1, wherein the steps of accessing the remote service directory and querying the potential services each involve communications conforming to a publicly defined protocol.

11. **(Previously Presented)** A consumer system comprising:  
a database storing a template specifying a plurality of events and a plurality of consumer descriptors;  
an interface operable to communicate with a remote service directory having service descriptors for each of a plurality of services and to communicate with the services; and  
an agent operable to access the remote service directory, to filter the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events, to query each of the potential services for additional service descriptors, to filter the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events, to identify service links for accessing the selected services, to modify the template to associate the service links with the events, to determine whether each of the events in the template has an associated service link, and when each of the events in the template has an associated service link, to present the template for acceptance.

12. **(Original)** The consumer system of Claim 11, wherein for each of the potential services, the additional service descriptors comprise a plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.

13. **(Original)** The consumer system of Claim 12, wherein each of the service links points to a particular feature of the identified service and specifies a command for accessing the particular feature.

14. **(Original)** The consumer system of Claim 11, wherein the consumer descriptors include global descriptors applicable across multiple templates and dynamic descriptors specifying constraints for one or more of the events.

15. **(Original)** The consumer system of Claim 11, wherein the agent is further operable to:

identify an additional event based on a query to one of the potential services;

modify the template to include the additional event;

access the remote service directory;

filter the services from the service directory based on the service descriptors, the additional event, and the consumer descriptors to determine potential ones of the services for fulfilling the additional event;

query each of the potential services for fulfilling the additional event for additional service descriptors;

filter the potential services for fulfilling the additional event based on the additional service descriptors, the additional event, and the consumer descriptors to determine one of the services for fulfilling the additional event;

identify a service link for accessing the determined service for fulfilling the additional event; and

modify the template to associate the identified service link with the additional event.

16. **(Original)** The consumer system of Claim 11, wherein the agent is further operable to receive an acceptance of the template and, in response, to access each of the selected services using the service links to request performance of the services.

17. **(Original)** The consumer system of Claim 16, wherein the agent is further operable to communicate payment information to at least one of the selected services.

18. **(Original)** The consumer system of Claim 11, wherein the template comprises a text based file.

19. **(Original)** The consumer system of Claim 11, wherein the template specifies events for a travel itinerary that includes an air transportation event, a lodging event, a ground transportation event, and a plurality of activities.

20. **(Original)** The consumer system of Claim 11, wherein the agent is further operable to access the remote service directory and query the potential services using communications conforming to a publicly defined protocol.

21. **(Previously Presented)** A computer readable medium encoded with instructions for dynamic service scheduling, the instructions operable when executed to perform the steps of:

- identifying a template specifying a plurality of events;
- determining a plurality of consumer descriptors;
- accessing a remote service directory having service descriptors for each of a plurality of services;
- filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events;
- querying each of the potential services for additional service descriptors;
- filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events;
- identifying service links for accessing the selected services;
- modifying the template to associate the service links with the events;
- determining whether each of the events in the template has an associated service link;

and

when each of the events in the template has an associated service link, presenting the template for acceptance.

22. **(Previously Presented)** The computer readable medium of Claim 21, wherein for each of the potential services, the additional service descriptors comprise a



plurality of interface descriptors each identifying a feature of the potential service and a format for interfacing with the feature.

23. **(Previously Presented)** The computer readable medium of Claim 22, wherein each of the service links points to a particular feature of the identified service and specifies a command for accessing the particular feature.

24. **(Previously Presented)** The computer readable medium of Claim 21, wherein the consumer descriptors include global descriptors applicable across multiple templates and dynamic descriptors specifying constraints for one or more of the events.

25. **(Previously Presented)** The computer readable medium of Claim 21, further operable when executed to perform the steps of:

identifying an additional event based on a query to one of the potential services;

modifying the template to include the additional event;

accessing the remote service directory;

filtering the services from the service directory based on the service descriptors, the additional event, and the consumer descriptors to determine potential ones of the services for fulfilling the additional event;

querying each of the potential services for fulfilling the additional event for additional service descriptors;

filtering the potential services for fulfilling the additional event based on the additional service descriptors, the additional event, and the consumer descriptors to determine one of the services for fulfilling the additional event;

identifying a service link for accessing the determined service for fulfilling the additional event; and

modifying the template to associate the identified service link with the additional event.

26. **(Previously Presented)** The computer readable medium of Claim 21, further operable when executed to perform the steps of receiving an acceptance of the template and,

in response, accessing each of the selected services using the service links to request performance of the services.

27. **(Previously Presented)** The computer readable medium of Claim 26, further operable when executed to perform the step of communicating payment information to at least one of the selected services.

28. **(Previously Presented)** The computer readable medium of Claim 21, wherein the template comprises a text based file.

29. **(Previously Presented)** The computer readable medium of Claim 21, wherein the template specifies events for a travel itinerary that includes an air transportation event, a lodging event, a ground transportation event, and a plurality of activities.

30. **(Previously Presented)** The computer readable medium of Claim 21, wherein the steps of accessing the remote service directory and querying the potential services each involve communications conforming to a publicly defined protocol.

31.     **(Previously Presented)** A consumer system comprising:

- means for identifying a template specifying a plurality of events;
- means for determining a plurality of consumer descriptors;
- means for accessing a remote service directory having service descriptors for each of a plurality of services;
- means for filtering the services from the service directory based on the service descriptors, the events, and the consumer descriptors to determine potential ones of the services for fulfilling the events;
- means for querying each of the potential services for additional service descriptors;
- means for filtering the potential services based on the additional service descriptors, the events, and the consumer descriptors to determine selected ones of the services for fulfilling the events;
- means for identifying service links for accessing the selected services;
- means for modifying the template to associate the service links with the events;
- means for determining whether each of the events in the template has an associated service link; and
- means for, when each of the events in the template has an associated service link, presenting the template for acceptance.

**Appendix B: Evidence**

NONE

**Appendix C: Related Proceedings**

NONE